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Arizona Corporation Commission
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COMMENTS BY THE AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY (ACEEE)

BEFORE THE ARIZONA CORPORATION COMMISSION

October 1, 2018

IN THE MATTER OF THE APPLICATION OF ARIZONA PUBLIC SERVICE COMPANY FOR A RULING RELATING TO ITS 2018 DEMAND SIDE MANAGEMENT IMPLEMENTATION PLAN.

DOCKET no. E-01345A-17-0134.

Regarding the Docketed Letter on Cost-effectiveness Testing of Energy Efficiency by Commissioner Olson on July 6, 2018

The American Council for an Energy-Efficient Economy (ACEEE) welcomes this opportunity to provide comments to the Arizona Corporation Commission (ACC) on the above-referenced docket. ACEEE is a nonprofit research organization based in Washington, D.C., that conducts research and analysis on energy efficiency policies and programs. ACEEE is one of the leading groups working on energy efficiency issues in the United States at the national, state, and local levels. We have been active on energy efficiency issues for more than three decades.

For this docket, ACEEE would like to respond to the Commissioner's request for information regarding the result of the Ratepayer Impact Measure (RIM) test.

ACEEE has done considerable research on the subject of cost-effectiveness testing for energy efficiency programs. In 2012 we published the results of a national 50-state survey of how state regulatory commissions were handling the evaluation of utility energy efficiency programs.[1] We found that the most widely used benefit-cost test was the Total Resource Cost (TRC) test, followed by the Utility Cost Test (UCT) and the Societal Cost Test (SCT). We found only one state (Virginia) that used the RIM test as its primary test of cost-effectiveness, and that state subsequently passed legislation that precluded the use of the RIM test as the primary test.

We have observed that the RIM test has been widely rejected as a primary test for decision-making about the cost effectiveness of utility energy efficiency programs. There are several reasons for this.

First, the RIM test does not really measure the cost effectiveness of an energy efficiency program. It is not a test of economic efficiency. Rather, it is an indicator of the distribution of already sunk utility system costs. It treats lost sales revenue as a cost. However those lost revenues address costs that have already been incurred elsewhere on the system, as they are typically reflective of the utility's existing fixed costs. They are not actually a cost of delivering the energy efficiency program. For this reason, the RIM test does not tell you whether a program is cost effective in terms of reducing total future costs from what they would be absent the program. The appropriate test for economic efficiency indicates whether the benefits from delivering the program exceed the costs of delivering the program. Energy efficiency has proven itself to be very successful at meeting that

[1] aceee.org/research-report/u122.

test. Also, properly targeted energy efficiency programs can be very effective at reducing peak demand as a part of those benefits.[2]

Second, the RIM test can produce perverse outcomes. The more energy a program saves, the worse it will do on the RIM test because the RIM test treats the lost sales revenue as a cost. A simple exercise can demonstrate why the RIM test is an unacceptable device for measuring economic efficiency. Assume a utility with the following typical conditions:

- An average retail rate of 9 cents
- An avoided cost of additional supply of 6 cents
- An energy efficiency program that saves electricity at a cost of 2 cents per kWh

Under the RIM test, the benefits of 6 cents would be compared to the program costs of 2 cents plus the costs of the 9 cents of lost revenue, and the program would be judged not cost effective even though saving electricity in this case costs one-third as much as acquiring additional electricity. Even if the energy efficiency program was free, the program would fail the RIM.

Third, it is inconsistent and unfair to selectively apply the RIM test to energy efficiency programs, when the RIM test is not applied to supply side investments such as new power plants or new distribution system infrastructure. Those would by definition all fail the RIM test because they would result in some rate increase over current rates.

ACEEE would like to emphasize, however, that although the RIM test is fatally flawed in terms of a cost-effectiveness test, it is certainly appropriate for regulators to want to be informed about the rate and bill impacts of energy efficiency programs. The recently developed *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources*[3] contains an appendix describing appropriate methods for examining and assessing the impacts of energy efficiency programs on rates, as well as on total customer bills. We urge the Commission to examine that resource.

In conclusion, ACEEE recommends that Arizona not use the RIM test as a measure of cost effectiveness for energy efficiency programs. ACEEE recommends that Arizona continue to use a Societal Cost Test as the primary test, and furthermore, review and consider the principles and practices described in the *National Standard Practice Manual* for possible improvements to cost-effectiveness testing in Arizona.[4]

ACEEE appreciates this opportunity to provide comments and is available as a resource to discuss any of the issues raised herein or others the ACC may be considering regarding the treatment of energy efficiency. We have attempted to keep our comments succinct, but welcome further discussion on ways that ACEEE could help Arizona utilize energy efficiency to strengthen the economy, create jobs, and reduce pollution.

Sincerely,

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[2] LBNL, 2017. "Time-varying value of electric energy efficiency." emp.lbl.gov/publications/time-varying-value-electric-energy.

[3] nationalefficiencyscreening.org/national-standard-practice-manual/.

[4] For examples of states currently applying the NSPM, see: aceee.org/files/proceedings/2018/index.html#/paper/event-data/p053.

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